

REMARKS

This Amendment is filed in response to the Office Action mailed on October 16, 2006. All objections and rejections are respectfully traversed.

Claims 1-46 are currently pending.

Claims 36-46 are added to better claim the invention.

Request for Interview

The Applicant respectfully requests a telephonic interview with the Examiner after the Examiner has had an opportunity to consider this Amendment, but before the issuance of the next Office Action. The Applicant may be reached at 617-951-3067.

Claim Rejections 35 USC § 101

At paragraph 6 of the Office Action, claims 1-35 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

The Examiner states claims 1-35 are directed to an abstract model of a method or process, the steps do not produce a useful and tangible result.” Applicant respectfully disagrees with the Examiner.

Applicant notes that the Federal Circuit has held that a process claim that applies a mathematical algorithm to "produce a useful, concrete, tangible result without pre-empting other uses of the mathematical principle, on its face comfortably falls within the scope of § 101," *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358, 50 USPQ2d 1447, 1452 (Fed. Cir. 1999). Applicant's claimed invention produces a result of

comparing markers within a signature of a first content and second content to determine if they are identical. In other words, Applicant's invention for examples, is comparing the markers of a signature of a first file with the markers of a signature of a second file to determine if the two files located in different locations are identical by sending the markers to the location of first file for comparison instead of the entire file. Accordingly, claims 1-35 produce a result of comparing two contents to determine if they are identical.

Claim Rejections 35 USC § 102

At paragraphs 7-8 of the Office Action, claims 1-26, and 30-33 were rejected under 35 U.S.C. §102(e) as being anticipated by Dimitrova et al., U.S. Patent No. 5,870,754 issued on Feb. 9, 1999, hereinafter Dimitrova.

The present invention, as set forth in representative claim 1, comprises in part:

1. A method for comparing a first content with a second content to determine whether the contents are identical, the method comprising the steps of:
 - identifying a protocol encoding the first content and second content;
 - computing a first signature of the first content and a second signature of the second content; and
 - comparing the first computed signature with the second signature to determine whether the first content is identical to the second content.***

By way of background, Dimitrova discloses storing signatures from MPEG and motion JPEG encoded video clips in a database. The signatures are stored in the database along with corresponding location, size and time length information. A hamming distance is calculated for each signature. The hamming distance is a measure from the signature of a query video clip to the signature of each corresponding frame in the

database video clip. (Col. 7, lines 24-27). The similarity between the query video clip signature and the database video clip signature is determined as the number of bits in the signature minus the Hamming distance measure between the foregoing video clip signatures. (Col. 8, lines 10-15). If the distance between the two video clips is low then the similarity between the two video clips is high. (Col. 8, lines 15-17).

Applicant respectfully urges that Dimitrova does not teach nor suggest Applicant's novel step of *comparing the first computed signature with the second signature to determine whether the first content is identical to the second content*. In further detail, in Applicant's claimed invention, Applicant compares the markers in the previously generated signatures. Specifically, this is stated at page 12, lines 8-24 of the specification, which states:

“The signature computation module 415 uses the delivered content segments to generate a signature of the content. Illustratively, such a signature may be computed by analyzing the content and identifying appropriate protocol markers. In the example of a JPEG (Joint Picture Expert Group) protocol, protocol markers could include discrete cosine (DC) components, escape sequences, and/or a number of zeros. Similarly, in the example of MPEG (Motion Pictures Expert Group) protocol, protocol markers include those of the JPEG protocol and various motion vectors. The identified protocol markers comprising the content signature are then fed into a signature comparison module 420. The signature comparison module 420 compares the two generated signatures of the inputs to determine if they are identical. It should be noted that the exemplary content comparator 400 may be implemented in hardware, software, firmware or a combination thereof in accordance with alternate embodiments of the present invention. More generally, a content comparator 400 may be comprised of a plurality protocol marker identifiers, comprising of a protocol identification module 405, a data segmentation module 410 and a signature computation module 415, associated with one or more signature comparison modules 420.”

Applicant's invention uses the markers generated during processing of the data to compare whether a first and second content are identical. Applicant's invention allows

the markers to be transferred for comparison instead of all the data for bit comparison or distance comparison as in Dimitrova. Dimitrova discloses comparing the distances of each video clip to the queried video clip to find the most similar. Dimitrova requires an extra computation using all the data to determine the most similar video clip. Dimitrova is not comparing the protocol but a calculated distance between frames. Applicant's invention claims comparing *the first computed signature with the second signature to determine whether the first content is identical to the second content*, where the first signature and the second signatures are based on a protocol encoding identified in the first element of the claim.

Accordingly, Applicant respectfully urges that the Dimitrova patent is legally precluded from anticipating the claimed invention under 35 U.S.C. § 102 because of the absence from the Dimitrova patent of Applicant's novel *comparing the first computed signature with the second signature to determine whether the first content is identical to the second content*.

Claim Rejections 35 USC § 103

At paragraphs 9-10 of the Office Action, claims 27-29, were rejected under 35 U.S.C. §103 as being unpatentable in view of Dimitrova, over Viswanath, US Patent No, 6,674,769, hereinafter Viswanath.

Applicant respectfully notes that claims 27-29 are dependent claims that are dependent from independent claims believed to be in condition for allowance. Accordingly, claims 27-29 are believed to be in condition for allowance.

At paragraph 11 of the Office Action, claims 34-35 were rejected under 35 U.S.C. §103 as being unpatentable in view of Dimitrova, over Viswanath.

The present invention, as set forth in representative claim 34, comprises in part:

34. A network caching device adapted to utilize a signature associated with a protocol for caching decisions, the network caching device comprising:

means for determining a protocol of new contents;
means for computing a signature of the content; and
means for comparing the computed signature of the new content with a signature of other content.

Viswanath discloses a network switch configured to perform layer 2 and layer 3 switching in an Ethernet network. A policy cache is configured within the switch to store packet signatures and respective policy identifiers for prior data packets having been classified earlier with respect to corresponding policy identifier.

Applicant respectfully urges that Dimitrova and Viswanath taken alone or in combination do not teach or disclose Applicant's claimed novel ***means for comparing the computed signature of the new content with a signature of other content.*** In further detail, in Applicant's claimed invention the signatures are compared to determine if the contents are the same. In contrast, Dimitrova uses a distance measurement, and not the signature, to determine the most similar. Additionally, Viswanath is silent about comparing the computed signatures.

Accordingly, Applicant respectfully urges that Dimitrova and Viswanath, taken alone or in combination, are legally insufficient to make obvious the presently claimed invention under 35 U.S.C. § 103 because of the absence of the Applicant's claimed novel ***means for comparing the computed signature of the new content with a signature of other content.***

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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